



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,671	07/02/2003	Tod R. Smeal	034536-0407	5378
22428	7590	01/24/2008		
FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER XIE, XIAOZHEN	
			ART UNIT 1646	PAPER NUMBER
			MAIL DATE 01/24/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/611,671

Applicant(s)

SMEAL ET AL.

Examiner

Xiaozhen Xie

Art Unit

1646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 23-103 is/are pending in the application.
- 4a) Of the above claim(s) 1-21 and 25-103 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20071126</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The Information Disclosure Statement (IDS) filed 26 November 2007 has been entered. Applicant's amendment of the claims received on 4 September 2007 has been entered.

In the Office Action mailed 1 May 2007, claim 23 is indicated allowable and claims 22 and 24 are rejected. However, upon further consideration, it appears that claims 23 and 24 are subjected to new grounds of rejections (see the following).

Claim 22 is cancelled. Claims 1-21 and 23-103 are pending. Claims 1-21 and 25-103 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention. Claims 23 and 24 are under examination.

Claim Objections/Rejections Withdrawn

The rejection of claim 24 under 35 U.S.C. 112, second paragraph, as being indefinite for referring serine-810 in the peptide of SEQ ID NO: 3 which has only a total of 18 amino acids, is withdrawn in response to applicant's amendment of the claim.

New Grounds of Rejections

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 23 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Jackson et al. (US 2005/0100554 A1, which has a provisional filing date on 14 February 2002).

The claims are directed to an isolated GEF-H1-specific antibody directed against a peptide comprising the sequence described in SEQ ID NO: 3, wherein said peptide comprises a phosphorylated serine; wherein said serine is serine-810 of SEQ ID NO: 2, which is residue number 4 of SEQ ID NO: 3.

Jackson teaches antibodies, e.g., polyclonal antibodies, directed against ARHGEF2 (also known as GEF-H1) [0193]. The amino acid sequence of ARHGEF2 (SEQ ID NO: 53) comprises the sequence described in SEQ ID NO: 3 of the instant application (alignment provided in the previous office action). The antibodies would be expected to specifically bind to ARHGEF2, no matter the protein is in a phosphorylated or unphosphorylated state. In other word, the antibodies would bind ARHGEF2 wherein the protein comprises a phosphorylated serine, or a phosphorylated Ser-810. Therefore, Jackson anticipates the instant claims.

Claims 23 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Scacco et al. (J. Biol. Chem., 2000, Vol. 275(23):17578-17582).

Scacco et al. teach a commercial monoclonal antibody, anti-phosphoserine antibody, from Sigma (pp. 17578, column 2, in Experimental Procedures). The anti-phosphoserine antibody would be expected to specifically bind to ARHGEF2 or a peptide comprising SEQ ID NO: 3, wherein ARHGEF2 or the peptide comprises a phosphorylated serine, e.g., a phosphorylated Ser-810. Therefore, Scacco et al. anticipate the instant claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 recites "the sequence described in SEQ ID NO: 3". It is vague and indefinite for using the word "described", since it is unclear if the claim language encompass variants of SEQ ID NO: 3. Amending the claim to "'the sequence set forth in SEQ ID NO: 3" or "the sequence of SEQ ID NO: 3" would obviate the rejection.

Conclusion

NO CLAIM IS ALLOWED.

Application/Control Number:
10/611,671
Art Unit: 1646

Page 5

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiaozhen Xie whose telephone number is 571-272-5569. The examiner can normally be reached on M-F, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary B. Nickol, Ph.D. can be reached 571-272-0835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Xiaozhen Xie, Ph.D.
January 17, 2008



GARY B. NICKOL, PH.D.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600